

A B S T R A C T

The invention provides a method of fabricating a steel part by forging, the method being characterized by
5 the following steps:

• preparing and casting a steel having the following composition in percentages by weight: $0.06\% \leq C \leq 0.35\%$; $0.5\% \leq Mn \leq 2\%$; traces $\leq Si \leq 2\%$; traces $\leq Ni \leq 1.5\%$; traces $\leq Al \leq 0.1\%$; traces $\leq Cr \leq 1.5\%$; traces $\leq Mo \leq 10 0.30\%$; traces $\leq V \leq 0.5\%$; traces $\leq Cu \leq 1.5\%$; the remainder being iron and impurities that result from preparation;

• forging a blank for the part at a temperature in the range $110^{\circ}C$ to $1300^{\circ}C$:

15 • cooling the blank for the part in controlled manner in still or forged air at a speed less than or equal to $3^{\circ}C/s$ in the range $600^{\circ}C$ to $300^{\circ}C$, thereby imparting a bainite microstructure to the blank;

• machining the part; and

20 • performing a mechanical reinforcing operation on the part at locations that are to be subjected to particularly high levels of stress.

The invention also provides a forging obtained in this way.